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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/509,832	10/03/2005	Ptosha Avon Burnett	608-440	2285

23117 7590 11/15/2007  
NIXON & VANDERHYE, PC  
901 NORTH GLEBE ROAD, 11TH FLOOR  
ARLINGTON, VA 22203

EXAMINER
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SINGH, PREM C

ART UNIT	PAPER NUMBER
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1797

MAIL DATE	DELIVERY MODE
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11/15/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Advisory Action</b> <b>Before the Filing of an Appeal Brief</b>	Application No. 10/509,832	Applicant(s) BURNETT ET AL.	
	Examiner Prem C. Singh	Art Unit 1797	

**--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

THE REPLY FILED 02 November 2007 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

1. ☒ The reply was filed after a final rejection, but prior to or on the same day as filing a Notice of Appeal. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114. The reply must be filed within one of the following time periods:

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.  
b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

Examiner Note: If box 1 is checked, check either box (a) or (b). ONLY CHECK BOX (b) WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on \_\_\_\_\_. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37 CFR 41.37(a).

#### AMENDMENTS

3. ☐ The proposed amendment(s) filed after a final rejection, but prior to the date of filing a brief, will not be entered because  
(a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);  
(b) ☐ They raise the issue of new matter (see NOTE below);  
(c) ☐ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or  
(d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: \_\_\_\_\_. (See 37 CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37 CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).  
5. ☐ Applicant's reply has overcome the following rejection(s): \_\_\_\_\_.  
6. ☐ Newly proposed or amended claim(s) \_\_\_\_\_ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).  
7. ☒ For purposes of appeal, the proposed amendment(s): a) ☐ will not be entered, or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.  
The status of the claim(s) is (or will be) as follows:  
Claim(s) allowed: \_\_\_\_\_.  
Claim(s) objected to: \_\_\_\_\_.  
Claim(s) rejected: 15-31.  
Claim(s) withdrawn from consideration: \_\_\_\_\_.

#### AFFIDAVIT OR OTHER EVIDENCE

8. ☐ The affidavit or other evidence filed after a final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).  
9. ☐ The affidavit or other evidence filed after the date of filing a Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).  
10. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

#### REQUEST FOR RECONSIDERATION/OTHER

11. ☒ The request for reconsideration has been considered but does NOT place the application in condition for allowance because:  
See Continuation Sheet.  
12. ☐ Note the attached Information Disclosure Statement(s). (PTO/SB/08) Paper No(s). \_\_\_\_\_.  
13. ☐ Other: \_\_\_\_\_.

Continuation of 11. does NOT place the application in condition for allowance because: The Applicant argues that Huff does not disclose the present process, wherein the liquid hydrocarbon stream to be contacted with the acidic catalyst comprises "organic nitrogen species". By contacting a hydrocarbon feedstock comprising alkylating agent with an acid catalyst at elevated temperature, organic nitrogen species within the hydrocarbon feedstock are converted to organic nitrogen species of increased boiling point. This is not suggested by Huff. Indeed, Huff leads away from this approach by disclosing that, since nitrogen containing organic compounds can react with the acidic catalyst and deactivate it (column 10, lines 48-51), the nitrogen containing compounds are removed beforehand by another means such as by using an acid wash or a guard bed positioned in front of the acid catalyst.

The Applicant's argument is not persuasive because Huff discloses a feed with alkylating agent, organic nitrogen and organic sulfur compounds, similar to the Applicant's (See Office action: dated: 07/02/2007). Huff is removing nitrogen first and then sulfur (See Huff: column 10, lines 45-53). Huff is using solid acidic polymeric resins and zeolites in the guard beds to remove nitrogen (See column 10, lines 57-59). Similar acidic polymeric resins and zeolites is being used to remove sulfur in the downstream process (See column 9, lines 58-65; column 10, lines 29-38). Interestingly, the Applicant is also using solid acid catalyst such as acidic polymeric resins and zeolites (See Specifications: page 6, lines 27-32; page 7, lines 1-11) similar to the Huff process. Additionally, the process operating conditions (temperature and pressure) in Huff invention are similar to the Applicant's claim (See Office action: dated 07/02/2007, page 7, paragraph 18). Thus, nitrogen removal in Huff process is similar to the Applicant's claim.

The Applicant argues that nitrogen removal in the Applicant's process is by catalysis and in Huff process by adsorption.

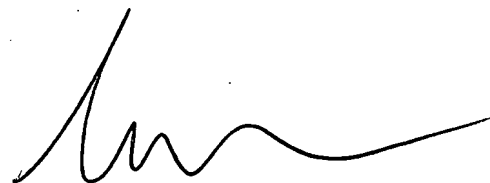
The Applicant's argument is not persuasive because Huff is using the same solid acid catalysts as used by the Applicant (as discussed above). So the mechanism of nitrogen removal should be the same in both cases.

The Applicant argues that at page 4 of the Action, it is asserted that it would have been obvious to modify Huff to remove nitrogen compounds also by fractionation "because any suitable separation technique will be equally effective." This is not correct, because contacting nitrogen containing compounds with the acidic catalyst runs the risk of deactivation of the catalyst which would not be seen by one of ordinary skill as "equally effective". The suggestion in the Action to so modify Huff is clearly based on hindsight in light of the discovery of the present invention, which is not proper basis for rejection.

The Applicant's argument is not persuasive because Huff is removing nitrogen before the feed stream goes downstream to remove sulfur. As discussed earlier, nitrogen is being removed by using a solid acid catalyst similar to the solid acid catalyst used to remove sulfur downstream.

The Applicant argues that in summary, Huff leads away from the concept of increasing the boiling point of organic nitrogen species by contact with an acidic catalyst because of problems with catalyst deactivation and, instead, points to removal of nitrogen-containing compounds using guard beds and acid wash units prior to contact with the acidic catalyst. Based on Huff, the person of ordinary skill would understand that the guard bed/acid wash treatment serves to remove organic nitrogen compounds, and does not convert them to other organic nitrogen compounds of higher boiling point.

The Applicant's argument is not persuasive because Huff is contacting the nitrogen compounds with solid acid catalysts similar to the Applicant's claim under similar operating conditions. Therefore, Huff process must also be converting the nitrogen compounds to other organic nitrogen compounds of higher boiling point as claimed by the Applicant.



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